



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION:	CF6-80E1A3	BYPASS RATIO:	5.1
UNIQUE ID NUMBER:	5GE085	PRESSURE RATIO ( $\pi_{00}$ ):	35.7
COMBUSTOR:	Standard		
ENGINE TYPE:	TF	RATED THRUST ( $F_{00}$ ) (kN):	304.8

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	12.6	46.7	65.8	10.8
AS % OF ORIGINAL LIMIT	64.3	39.6	59.1	61.9
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			73.8	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			83.9	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			93.5	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			107.0	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 - DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	2.989	0.07	0.34	45.63	10.1
CLIMB OUT	85	2.2	2.387	0.07	0.31	31.74	8.6
APPROACH	30	4.0	0.755	0.18	1.23	10.29	0.0
IDLE	7	26.0	0.227	9.53	37.02	4.69	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			976	3438	13473	19254	-
NUMBER OF ENGINES				6	6	6	6
NUMBER OF TESTS				11	11	11	11
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				11.3	44.2	63.2	10.1
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							

### ACCESSORY LOADS

POWER EXTRACTION	0	(kW)	AT	-	POWER SETTINGS
STAGE BLEED	0	(% CORE FLOW)	AT	-	POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.6-98.2
TEMPERATURE (K)	279-293
ABS HUMIDITY (kg/kg)	0.00457-0.00743

### FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.3

MANUFACTURER: General Electric Company  
 TEST ORGANIZATION: CF6 Eval Engineering  
 TEST LOCATION: Site IIIB, PTO Peebles  
 TEST DATES: 13/01/1995-17/01/1995

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

### REMARKS

1. Ref. GE Reports R84AEB152, R90AEB188, R95AEB272-2
2. Standard combustor
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NO<sub>x</sub> levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements: -

('x' if complies, 'PR' if pre-regulation, '-' if information is not available)